

Industrial Panel PC

Product Guide



Your best partner choice for HMI, Automation and Industrial Communication



4.3" HMI SERIES

HMI-043T-EM4XX-0

Display Size	4.3" WVGA TFT LCD
Resolution (Pixel)	480 x 272
Colors	16.7M
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hrs.
Brightness	300 cd/m²
CPU	SoC Vortex86EX-400MHz
Contrast Ratio	500:1
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 4-way, 128KB L2 Cache
BIOS	Coreboot BIOS
System Memory	Integrated 128MB/256MB RAM
Storage	512MB (SLC) 2GB (MLC) 8GB (MLC) eMMC onboard
Watchdog Timer	Software programmable from 30.5u to 512s x 2 sets
LAN	Integrated RJ45 10/100Mbps Ethernet
Audio	HD Audio/Realtek CODEC
Serial Port	RS232 x1/ RS485 x2/ CAN Bus x1
USB	USB ports (Ver2.0) x2
Digital I/O	3S/ 2U/ CAN/ LAN/ Audio/ 8GPIO
Power Requirement	+5VDC
Operating Humidity	0% - 90% Relative Humidity, Non-Condensing
Dimensions	105.5 x 67.2 x 13.8mm
Weight	250g



HMI-043T-EM4XX-BF01

Display Size	4.3" WVGA TFT LCD
Resolution (Pixel)	480 x 272
Colors	16.7M
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hrs.
Brightness	300 cd/m²
CPU	DMP Vortex86DX3-400MHz
Contrast Ratio	500:1
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 4-way, 128KB L2 Cache
BIOS	Coreboot BIOS
System Memory	Integrated 128MB/256MB RAM
Storage	SD Card/ 512MB (SLC) 2GB (MLC) 8GB (MLC) eMMC onboard
Watchdog Timer	Software programmable from 30.5u to 512s x 2 sets
LAN	Integrated RJ45 10/100Mbps Ethernet
Audio	N/A
Serial Port	RS-232/ RS-485/ CAN bus (Optional)
USB	USB ports (Ver2.0) x1
Digital I/O	1U/ 1S
Power Requirement	+7-24VDC
Operating Humidity	0% - 90% Relative Humidity, Non-Condensing
Dimensions	128.1 x 95.0 x 34.3mm
Weight	350g



HMI-043T-EM4XX-0 (front) HMI-043T-EM4XX-0 (back) HMI-043T-EM4XX

Features

4.3" TFT LCD Resistive Touchscreen
 DMP SoC Vortex86EX-400MHz
 128MB / 256MB DDR3 onboard
 3S / 2U / LAN / Audio / 8GPIO / CAN / eMMC / 5V
 DM8P SoC Vortex86X3-400MHz
 Integrated 128MB / 256MB DDR3 onboard
 RS-232/485/ Can bus (Optional) and USB 2.0 x1
 Operation Temperature: 0 ~ +50°C / -20 ~ +60°C
 +7 ~ 24VDC

Operating System

Windows Embedded Compact 7
 Windows Embedded CE 6.0
 DOS

Features

4.3" TFT LCD Resistive touchscreen
 DMP SoC Vortex86EX-400MHz
 Integrated 128MB / 256MB DDR3 onboard
 RS-232/485/ Can bus (Optional) and USB 2.0 x1
 Operation Temperature: 0 ~ +50°C / -20 ~ +60°C
 +7 ~ 24VDC

Operating System

Windows Embedded Compact 7
 Windows Embedded CE 6.0
 DOS

HMI Series with EXm

Product Code	LCD Size	CPU Type	CPU Clock	RAM	Flash onboard	I/O
HMI	043T	EM (EXm)	3 (300MHz)	1 (128M)	N (No Flash) B (512MB; SLC only) D (2GB; MLC only) F (8GB; MLC only)	O (Open Frame) B (O type + Case) B01 (B type + I/O board with case) B02 (B type + PoE I/O board with case) B03 (B type + CAN I/O board with case) BF (O type + Case + RFID) BF01 (B type + I/O board with case + RFID) BF02 (B type + PoE I/O board with case + RFID) BF03 (B type + CAN I/O board with case + RFID)
			4 (400MHz)	2 (256MB)		

4.3" HMI SERIES

PN8M SERIES NXP I.MX8M

PN8M-090T-8A

Display Size	8" WSVGA TFT LCD
Resolution (Pixel)	1024 x 600
Colors	16.2M
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hrs.
Brightness	300 cd/m²
CPU	NXP I.MX8M Mini 1.6GHz Cortex-A53 (Quad)
Contrast Ratio	500:1
Internal Drive	8GB/16GB/32GB eMMC and Micro SD Slot
OS Support	Yocto Linux (Default) / Android (Optional)
System Memory	1GB/2GB/4GB LPDDR4 Memory onboard
WLAN Support	WLAN & Bluetooth (Optional)
LAN	Integrated 10/100/1000Mbps Ethernet
Audio	WM9950/WM9820 Stereo, Line-out
Serial Port	RS232/485 x1(COM1)
USB	USB2.0 x2
Digital I/O	1S/ 2U/ GLAN/ Audio
Expansion I/O	Mini PCIe Slot with Micro SIM Card Holder
Power Requirement	Multi-Voltage +12 ~ 36VDC (PN8M-090T-8A) Single Voltage +5VDC (PN8M-090T-5A)
Power Consumption	8 Watt (Typical)
Operating Humidity	0% ~ 90% Relative Humidity, Non-Condensing
Dimensions	238.6 x 146 x 35mm
Weight	840g



PBSW SERIES Braswell

PBSW-090T-8A

Display Size	8" WSVGA TFT LCD
Resolution (Pixel)	1024 x 600
Touch Screen	Analog Resistive (Standard) / Projected Capacitive Touch Panel (Option)
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hrs.
Brightness	300 cd/m²
CPU	Intel® Braswell Atom x5-E8000 Processor (Quad core 1.04GHz; Burst 2.00GHz) Intel® Braswell Pentium N3710 Processor (Quad core 1.60GHz; Burst 2.56GHz) Intel® Braswell Celeron N3160 Processor (Quad core 1.80GHz; Burst 2.24GHz)
Contrast Ratio	500:1
Disk Support	M.2 Slot Support (M-Key, SATA Interface, 2242)
OS Support	Windows 10 (64-bit) / Windows 7 (64-bit) / Linux
System Memory	4GB DDR3L Onboard
BIOS	AMI BIOS
LAN	Integrated 10/100/1000Mbps Ethernet
Audio	HD Audio/Realtek CODEC
HSUART Ports	Intel Internal SIO HSUART x1 (HSUART is not a standard RS232 port, and ICOP can offer an add-on RS232 module if you need a standard RS232 port.)
Serial Port	RS232/ 485 x1 (COM1)
USB	USB3.0 x2
Digital I/O	1S/ 2U/ GLAN/ Audio
Expansion I/O	mPCIe Slot x1 Micro SIM Card Holder x1
Power Requirement	8A: +12V ~ +36VDC power input by terminal block
Storage Temperature	-30°C ~ +80°C
Dimensions	238.6 x 146 x 35mm
Weight	880g



PN8M / PBSW SERIES

Features

- TOUCH
 - WI-FI
 - FANLESS
 - CE
 - FCC
 - VCCI
 - VIBRATION
 - IP65
- 9" TFT Resolution LCD with resistive touchscreen
 NXP I.MX8M Mini, Quad-core 1.6GHz ARM Cortex-A53 processor
 2GB LPDDR4 onboard
 S / 2U / GLAN / Audio / eMMC / Mini PCIe
 Operation Temperature: 0 ~ +80°C / -20 ~ +70°C
 eMMC-16GB onboard
 Mini PCIe socket with Micro SIM Card Holder
 Wide power voltage input, +12 ~ 36VDC

Operating System

- yocto android

Ordering Information

PN8M-090T-8A-B5GM (2GB DRAM / 16GB eMMC / WLAN&BT / RTP)
 PN8M-090T-8A-N6GM (2GB DRAM / 16GB eMMC / RTP)
 PN8M-090T-P8A-B5GM (2GB DRAM / 16GB eMMC / WLAN&BT / CTP)
 PN8M-090T-P8A-N6GM (2GB DRAM / 16GB eMMC / CTP)

Features

- TOUCH
 - WI-FI
 - FANLESS
 - CE
 - FCC
 - VCCI
 - VIBRATION
 - IP65
- 9" TFT Resolution LCD with resistive touchscreen
 Intel® Braswell x5-E8000/N3160/N3710 Processor (Quad Core)
 4GB DDR3L onboard
 S / 2U / GLAN / Audio / M.2-2242 / Mini PCIe / 12-36V
 Operation Temperature: 0 ~ +50°C / -20 ~ +60°C
 The COM on this device is an Intel Internal SIO HSUART
 Mini PCIe socket with Micro SIM Card Holder
 Wide power voltage input, +12 ~ 36VDC

Operating System

- Windows 7 Windows 10 Linux

Ordering Information

PBSW-090T-8A-E8-4G (x6-E8000 / 4GB DRAM / RTP)
 PBSW-090T-8A-N7-4G (N3710 / 4GB DRAM / RTP)
 PBSW-090T-8A-N6-4G (N3160 / 4GB DRAM / RTP)
 PBSW-090T-P8A-E8-4G (x6-E8000 / 4GB DRAM / CTP)
 PBSW-090T-P8A-N7-4G (N3710 / 4GB DRAM / CTP)
 PBSW-090T-P8A-N6-4G (N3160 / 4GB DRAM / CTP)



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PDX3 SERIES Vortex86DX3

PDX3-057T-8A

Display Size	5.7" TFT LCD
Resolution (Pixel)	840 x 480
Colors	262,144
View Angle	Vertical 100°, Horizontal 140°
Backlight Life	50,000 hours
Brightness	300 cd/m²
CPU	DM8P Vortex86DX3-1GHz
Contrast Ratio	300:1
Touch Screen	Analog Resistive/ Capacitive Touch Panel
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 512KB Cache
BIOS	AMI BIOS
System Memory	1GB/ 2GB DDR3 onboard
Watchdog Timer	Software programmable from 30.5u to 512 seconds x 2 sets
LAN	HD Audio/Realtek CODEC
Storage	Mini SD Slot/ CF Card/ 2GB NAND Flash Onboard (Optional)
USB	USB2.0 x2
Digital I/O	1S/ 2U/ LAN/ Audio
Expansion I/O	N/A
Power Requirement	Multi-Voltage +8 ~ +35VDC (PDX3-057T-8A) Single Voltage +5VDC (PDX3-057T-5A)
Power Consumption	20W (Max.)
Operating Humidity	0% ~ 90% Relative Humidity, Non-Condensing
Dimensions	152 x 112 x 33mm
Weight	500g

PDX3-090T-8A

Display Size	8" WSVGA
Resolution (Pixel)	1024 x 600
Colors	262,144
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hours
Brightness	300 cd/m²
CPU	DM8P Vortex86DX3-1GHz
Contrast Ratio	500:1
Touch Screen	Analog Resistive/ Capacitive Touch Panel
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 512KB Cache
BIOS	AMI BIOS
System Memory	1GB/ 2GB DDR3 onboard
Watchdog Timer	Software programmable from 30.5u to 512 seconds x 2 sets
LAN	Integrated 10/100M Ethernet
Audio	HD Audio/Realtek CODEC
Storage	Mini SD Slot/ CF Card/ 2GB NAND Flash Onboard
USB	USB2.0 x2
Digital I/O	1S/ 2U/ LAN/ Audio
Expansion I/O	N/A
Power Requirement	Multi-Voltage +8 ~ +35VDC (PDX3-090T-8A) Single Voltage +5VDC (PDX3-090T-5A)
Power Consumption	20W (Max.)
Operating Humidity	0% ~ 90% Relative Humidity, Non-Condensing
Dimensions	238.6 x 146 x 35mm
Weight	790g

PDX3-057T-8A

Display Size	5.7" TFT LCD
Resolution (Pixel)	840 x 480
Colors	262,144
View Angle	Vertical 100°, Horizontal 140°
Backlight Life	50,000 hours
Brightness	300 cd/m²
CPU	DM8P Vortex86DX3-1GHz
Contrast Ratio	300:1
Touch Screen	Analog Resistive/ Capacitive Touch Panel
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 512KB Cache
BIOS	AMI BIOS
System Memory	1GB/ 2GB DDR3 onboard
Watchdog Timer	Software programmable from 30.5u to 512 seconds x 2 sets
LAN	Integrated 10/100M Ethernet
Audio	HD Audio/Realtek CODEC
Storage	Mini SD Slot/ CF Card/ 2GB NAND Flash Onboard
USB	USB2.0 x2
Digital I/O	1S/ 2U/ LAN/ Audio
Expansion I/O	N/A
Power Requirement	Multi-Voltage +8 ~ +35VDC (PDX3-057T-8A) Single Voltage +5VDC (PDX3-057T-5A)
Power Consumption	20W (Max.)
Operating Humidity	0% ~ 90% Relative Humidity, Non-Condensing
Dimensions	152 x 112 x 33mm
Weight	500g

PDX3-090T-8A

Display Size	8" WSVGA
Resolution (Pixel)	1024 x 600
Colors	262,144
View Angle	Vertical 120°, Horizontal 140°
Backlight Life	20,000 hours
Brightness	300 cd/m²
CPU	DM8P Vortex86DX3-1GHz
Contrast Ratio	500:1
Touch Screen	Analog Resistive/ Capacitive Touch Panel
Cache	L1: 16KB I-Cache, 16KB D-Cache L2: 512KB Cache
BIOS	AMI BIOS
System Memory	1GB/ 2GB DDR3 onboard
Watchdog Timer	Software programmable from 30.5u to 512 seconds x 2 sets
LAN	Integrated 10/100M Ethernet
Audio	HD Audio/Realtek CODEC
Storage	Mini SD Slot/ CF Card/ 2GB NAND Flash Onboard
USB	USB2.0 x2
Digital I/O	1S/ 2U/ LAN/ Audio
Expansion I/O	N/A
Power Requirement	Multi-Voltage +8 ~ +35VDC (PDX3-090T-8A) Single Voltage +5VDC (PDX3-090T-5A)
Power Consumption	20W (Max.)
Operating Humidity	0% ~ 90% Relative Humidity, Non-Condensing
Dimensions	238.6 x 146 x 35mm
Weight	790g

PDX3 SERIES

PPC SERIES Apollo Lake

PPC-090T-APL / PPC-104T-APL / PPC-150T-APL / PPC-150P-APL

Model	PPC-090T-APL	PPC-104T-APL	PPC-150T-APL	PPC-150P-APL
Display Size	8" WSVGA	10.4" SVGA	15" XGA	15" XGA
Resolution (Pixel)	1024 x 800	800 x 600	1024 x 768	1024 x 768
Brightness	300 cd/m²	500 cd/m²	350 cd/m²	350 cd/m²
Touch Screen	Analog Resistive/ Capacitive Touch Panel	Analog Resistive		Capacitive Touch Panel
CPU	Intel Pentium N4200 (Quad) / Intel Celeron N3350 (Dual)			
System Memory	4GB/ 8GB			
Digital I/O	2S/ 3U/ LAN/ Audio			
Storage	M.2 2242 SATA Primary / 2.5" SATA HDD / SSD			
Expansion I/O	Mini PCIe Slot x1 / HDMI 1.4 (w/ DUAL Display)			
Power Requirement	+12VDC Power Adapter			
Operating Temperature	0 ~ +60°C (+32 ~ +140°F)			
Dimensions	242.02 x 156.52 x 50.55mm	273.44 x 219.84 x 56mm	354.84 x 280.84 x 61.6mm	359.63 x 282.98 x 61.5mm

PPC-090T-EHL / PPC-104-EHL / PPC-150T-EHL / PPC-150P-EHL

Model	PPC-090T-EHL	PPC-104-EHL	PPC-150T-EHL	PPC-150P-EHL
Display Size	8" WSVGA	10.4" SVGA	15" XGA	15" XGA
Resolution (Pixel)	1024 x 600	800 x 600	1024 x 768	1024 x 768
Brightness	300 cd/m²	500 cd/m²	350 cd/m²	350 cd/m²
Touch Screen	Analog Resistive / Capacitive Touch Panel	Analog Resistive		Capacitive Touch Panel
CPU	Intel® Elkhart Lake J8412 Processor (Quad Core 2.0GHz)			
System Memory	8GB/16GB/32GB DDR4 Memory			
Digital I/O	2S/ BU/ 2HDMI / 2.56GLAN / Audio / M.2 2242 Power Adapter			
Storage	M.2 M-key (2242/ 2280) PCIe Gen.3x2 / SATA Interface support NVME			
Expansion I/O	M.2 B-key (3024) USB3.1 / USB2.0 Interface & M.2 E-key (2230) USB2.0 PCIe Gen.3x1 Interface			
Power Requirement	+12 ~ 24V Power Adapter			
Operating Temperature	0 ~ +60°C (+32 ~ +140°F)			
Dimensions	242.02 x 156.52 x 50.55mm	273.44 x 219.84 x 56mm	354.84 x 280.84 x 61.6mm	359.63 x 282.98 x 61.5mm

PPC-090T-EHL PPC-104-EHL PPC-150T-EHL PPC-150P-EHL

Model	PPC-090T-EHL	PPC-104-EHL	PPC-150T-EHL	PPC-150P-EHL
Display Size	8" WSVGA	10.4" SVGA	15" XGA	15" XGA
Resolution (Pixel)	1024 x 600	800 x 600	1024 x 768	1024 x 768
Brightness	300 cd/m²	500 cd/m²	350 cd/m²	350 cd/m²
Touch Screen	Analog Resistive / Capacitive Touch Panel	Analog Resistive		Capacitive Touch Panel
CPU	Intel® Elkhart Lake J8412 Processor (Quad Core 2.0GHz)			
System Memory	8GB/16GB/32GB DDR4 Memory			
Digital I/O	2S/ BU/ 2HDMI / 2.56GLAN / Audio / M.2 2242 Power Adapter			
Storage	M.2 M-key (2242/ 2280) PCIe Gen.3x2 / SATA Interface support NVME			
Expansion I/O	M.2 B-key (3024) USB3.1 / USB2.0 Interface & M.2 E-key (2230) USB2.0 PCIe Gen.3x1 Interface			
Power Requirement				